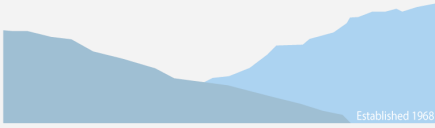


Cracklin' Static

June 2023 Edition



SIERRA NEVADA Amateur Radio Society

**In-person and virtual
meeting at Jack's Café
#2, July 1, starting at
7 AM. For details see
pg 5 ...**

SNARS NET on DMR – Tuesdays 8pm
DMR Talk Group: 31328 SNARS

SNARS Treasury Closing Balances Per W7DBE as of June 23, 2023

Operating	\$7838
Convention	\$4151
Self Insurance	\$17001
Savings	\$7001
PayPal	\$1373
Total	\$37364

Memberships 20

Donations	
Amazon Smile	\$114 (rec'd final \$68.80)
PayPal Giving	\$20
Members	\$ 6890
Total	\$7074

1. Transferred \$6,000 from Savings to Operating
2. Purchased 4 repeaters (2 sets) for \$11,043
3. Purchased Food for Field Day - \$580

SNARS Membership as of 6-23-23

Extra	139	34%
Technician	127	31%
General	119	29%
Advanced	15	4%
No License	7	2%
Total	407	

SNARS ARRL Members as of 6-23-23

Regular	266	65%
Life	35	9%

PRESIDENT'S VOICE

SNARS PRESIDENT BARRY BETTMAN, K6ST

Field Day is upon us as I write this column. I hope everyone had a great experience. Thanks to all who helped out for SNARS Field Day at Washoe Lake State Park. If you have pictures or stories of any of the field day locations, please send to Howie WB2AWQ <holden7471@msn.com>

For the month of July SNARS has Saturday, July 3rd as our Monthly HYBRID meeting for an in-person 7a pt breakfast, 8a pt business meeting, and Skywarn and Weather Patterns with Amanda Young, National Weather Service. We have limited seating for breakfast at Jack's #2 Coffee Shop. You must pre-register for both in-person and Zoom. In-Person Breakfast and Hybrid Zoom registration

registration link (CLICK on the link or on the banner below):

<https://snars.org/monthly-meeting/>

SNARS In-Person/Zoom Meeting
Jack's Coffee Shop #2
Saturday, July 1st
REGISTER NOW!
Click for more info

Celebrate 13 Colonies Special Event

13 COLONIES SPECIAL EVENT
Commencing
SATURDAY JULY 1ST 6AM PT
Ending
FRIDAY JULY 7TH 9PM PT
All Modes And All HF Bands May Join! (Except 6om)
CLICK AND LEARN MORE

Click on the link below or on the banner above for more Info:

<http://www.13colonies.us/>

Happy beginning to summer!

73 my friends, and ...

See you on the air, K6ST Barry k6st@arri.net



PO BOX 7727 Reno NV 89510

Yearly Dues: \$40.00 Individual • \$50.00 Family

2023 Officers

President..... Barry Bettman, K6ST
Vice-President..... Brian Verhalen, KJ6EAC
Treasurer..... Doug Edmondo, W7DBE
Secretary..... Anthony Marcin, W7XM
Director John Byerly, N7ROJ
Director Jim Shepherd, W6US
Director Krystal Nelson, AJ6GC

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Cracklin Static	Howie Holden, WB2AWQ
W7TA Trustee	Peter DeBay, KE7VSR
KR7ENO Trustee	Howie Holden, WB2AWQ
Control Operator	Pat Sheehan, W7DED
Youth Involvement	Barry Bettman K6ST
NVQSO Coordinator	Jim Shepherd, W6US
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DMR Net Manager	Anthony Marcin, W7XM
Reno Ham Swap	Wes Vick, KG7QXE
Webmaster	Erik Andreasen, K6CZH
Club Sales Manager	Vacant
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Cracklin Static Publication

Editor: Howie Holden WB2AWQ - holden7471@msn.com
Cracklin' Static is the Newsletter of, and sponsored by the Sierra Nevada Amateur Radio Society. Cracklin' Static is published the week before meetings. Opinions expressed herein are those of the editors and contributors and should not be considered as official expressions of the Club Officers, Staff or Club Members, or as endorsements by same.

Material for publication may be edited to enhance readability or to save space. We reserve the right to use whatever font size, line spacing or other tools as may be required to publish this Newsletter. **Deadline for input to the newsletter is 1500 hours on the Sunday** prior to the 1st Saturday (or whichever Saturday is the meeting) of each month.

SNARS Wide Area Linked System

147.030 + PL 123.0	Sparks, Fernley, Fallon	Online
147.210 + PL 100.0	Reno, Sparks	Online
147.150 + PL 123.0	Lake Tahoe, Truckee, Carson	Online
146.925 - PL 123.0	Lovelock, Fallon	Online
146.670 - PL 123.0	Winnemucca	Offline
444.875 + PL 100.0	Yerington	Not Linked
444.125 + PL 123.0	Reno Sparks	Offline

DMR Systems

444.925 + CC 1	Reno, Sparks	Online
444.825 + CC 1	Dayton, Fallon, Carson	Online
443.925 + CC 1	Lake Tahoe, Truckee, Carson	Online
443.950 + CC 1	Incline Village	Online
442.875 + CC 1	Sparks, Fernley, Fallon	Online
442.850 + CC 1	Downtown Reno	Online
441.950 + CC 1	Fallon, Fernley	Online

Fusion Systems

146.610—DGID 28	Reno, Carson, Dayton	Online
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IRLP / EchoLink Systems

147.300 + PL 123.0	Reno, Sparks	Not Linked
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Packet / APRS

145.050 - RNO	Reno, Carson, Dayton	Online
145.050 - ROSE	Lake Tahoe, Truckee, Carson	Online
144.390 - TOULON	Lovelock, Fallon	Offline

Standalone Systems

147.390 + PL 100.0	Reno, Carson, Dayton	Online
443.075 + PL 123.0	Reno, Carson, Dayton	Online
927.0875 + PL 114.8	Reno, Carson, Dayton	Online

■ Online
 ■ Offline
 ■ Not Linked

The repeaters on Virginia Peak have been replaced with new ones, and they sound great!

Visit <https://snars.org/repeaters/analog> for additional updates/status on repeaters.



Weekday on the SNARS Linked System

147.030 + PL 123 – Sparks/Fernley
147.150 + PL123.0 – Lake Tahoe / Truckee
147.210 + PL 100.0 - Reno
444.875 + PL 100.0 - Yerington
146.925 - 123.0 – Lovelock / Fallon
146.67 – PL 123.0 - Winnemucca

Monday through Friday @ 12:00pm

Open to all amateur radio operators. A general informational net for the amateur radio community of

Nets on the SNARS Linked Systems

147.210 + 100.0 | 147.030 + 123.0 | 147.150 + 123.0
147.670 – 123.0 | 146.925 – 123.0 | 444.875 + 100.0

SNARS Noon Net	Mon—Fri @ 12:00pm
ERC Net for NV and Northern CA	Monday @ 9:15pm
N. Western NV ARES Net	Thursday @ 7:30pm
Northern Nevada Preppers Net	Wednesday @ 8:00PM
Hospital Net	Friday @ 10:00AM

Nets on Simplex/HF

Jefferson Noon Net	7.204 LSB	Daily - 12:00pm
6 Meter Net	50.350 USB	Tuesday – 8:00pm
2 Meter Weak Signal	144.250 USB	Wednesday - 8:00PM
2 Meter Simplex Net	146.500 FM	Thursday – 8:00PM
10 Meter Net	28.350 USB	Sunday – 2:00PM

Join us on SNARS Telegram Channel



Telegram

a new era of messaging

Visit <https://snars.org/telegram>

Our official channel for members to communicate with each other via chat, ask questions and get the latest information about the club, repeater status and amateur



SNARS Weekly DMR Net

Tuesdays 8:00PM

SNARS Talk Group 31328

SNARS CALENDAR

QCWA Meeting Saturday, July 8, 11AM—1PM
Famous Dave's Bar-B-Que, 4925 Kietzke Ln, Reno NV

SNARS Board Meeting Wednesday, July 12, 6:00PM. Location and mode Chin Chin, Sparks, and Zoom

HAM RADIO MENTORING NIGHT on Zoom 7:00 PM Monday, July 18, see <https://snars.org/hamradionight/>

Reno QRP Group Meeting Tuesday, July 19, 11am – 12pm, Jack's Coffee Shop #2, 605 N Wells Ave, Reno, NV. Contact Ed, WD7Y WD7Y@sbcglobal.net for more info. If cancellation is needed, will be announced on the SNARS noon net.

Next months SNARS Breakfast Meeting, August 5, 8 AM. Location and media mode tentative, depending on Board decision.

WELCOME NEW MEMBERS

As of June 23, 2023

Daniel Weinberg	WB7OXP
Orion Vick	KK7MRR
Dustin Watt	KK7MEW
Dennis Christensen	AG7MB

Member Benefit: SNARS ONLINE HAM SWAP

<https://snars.org/hamswap>

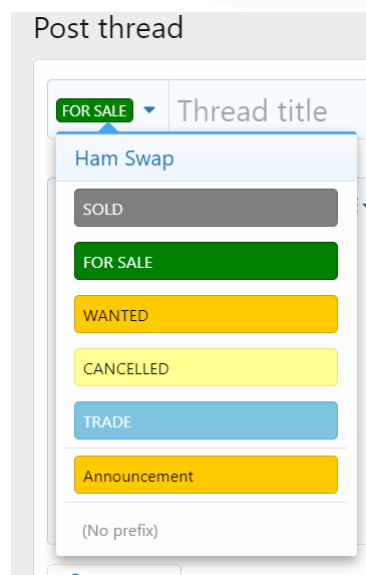
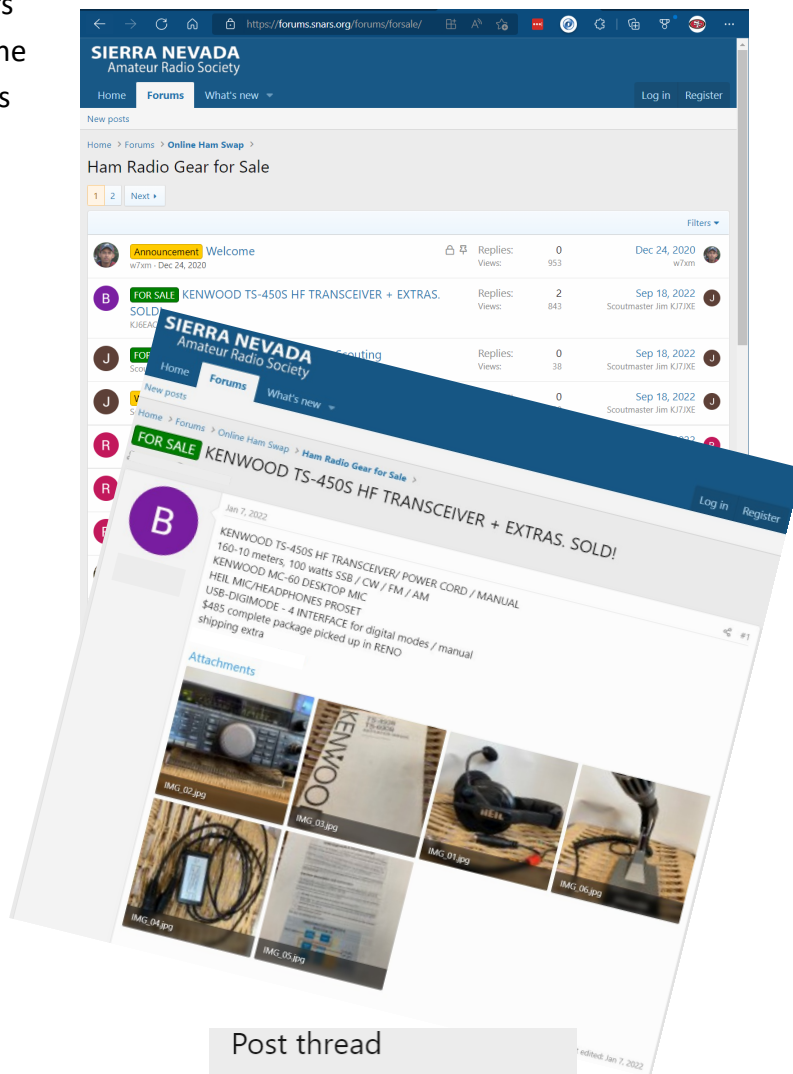
A SNARS members only benefit: We offer members a way to swap gear online and locally throughout the year. The online Ham Swap page provides members an option to list your gear, photos and descriptions for anyone to view.

You can find the swap page by either visiting <https://snars.org/hamswap> or locate the link at the top menu of the SNARS website labeled “Ham Swap”.

General Steps to posting a listing:

- 1.) Using your SNARS account (your_call@snars.org) click the Log in button at the top right. If you don't have a SNARS Account please request one to be setup by sending an email to membershipteam@snars.org.
- 2.) Click the “Post thread” button at top right.
- 3.) Select the post type “For Sale, Wanted, etc.” by clicking the down arrow button left of the title box.
- 4.) Type in a title for your items.
- 5.) Type in the message of any description of the items, condition of items and the best way to contact you. You may also post images of the items (recommended).
- 6.) Once you have completed the post click on “Post thread”.
- 7.) Your posting will now appear for all to view.

Note: you may visit the post anytime to update items and or change the status from for sale to sold by clicking the edit thread button under the three dots button and click edit thread, then click on the down arrow to choose the thread type to Sold or any other status.



If you have any questions about this member benefit please contact us at membershipteam@snars.org

SNARS In-Person and Virtual Monthly Meeting

SNARS Monthly Meeting

(hybrid in-person & virtual Zoom)

**Saturday, July 1, 2023 at Jack's Café #2,
605 N. Wells Ave, Reno NV. Breakfast**

**In-Person 7 AM, SNARS Meeting at 8 AM both Zoom and
in-person**

PRESENTATION:

**SKYWARN AND WEATHER PAT-
TERNS WITH AMANDA
YOUNG, NATIONAL WEATHER
SERVICE.**



**MEETING
NOTICE!**

To join in person or via Zoom, register here, or on the banner below:

<https://snars.org/monthly-meeting/>

SNARS In-Person/Zoom Meeting
Jack's Coffee Shop #2
Saturday, July 1st
REGISTER NOW!
Click for more info

Questions? Contact Barry K6ST@arrl.net

More Info/Register In-Person or Zoom: <https://snars.org/monthly-meeting/>

THE NAME OF THE GAME

Jim Shepherd W6US

A LITTLE ASSEMBLY NEEDED

Building ham radio gear has long been a big part of the hobby. In the early days, virtually all gear was homebrew. Along the way, construction of equipment has dropped off. A lot of hams hardly know what end of the soldering iron to use.

Heathkit used to be the major supplier of ham radios and test equipment in kit form. They were well documented with step by step instructions for their assembly, and if you followed the assembly manual, you usually ended up with a good piece of working equipment. There is still a lot of the assembled equipment showing up at hamfests and in the used market. Since you built it, you could service it. Unfortunately, interest in building gear dropped off as the prices fell on commercial equipment and more became available on the used market. The use of solid state devices also was a factor in its demise.

When printed circuit boards (PCB) started switching from discrete components to surface mount, a lot of folks gave up working on radios. That American Beauty soldering iron no longer could be used for construction. Complaints about failing eyesight and the difficulty of placing components that will fit in the upper loop of the "e" in this text also were heard.



QRP Guys 10/12/15M CW transceiver kit

Fortunately, a new breed of kits are showing up. They have all the surface mount components pre-soldered, and only the 'through the hole' components need to be soldered into place and the unit properly mounted into an enclosure. There are a few outfits that are still making PCBs with through the hole components. The IDer board by Hamtronics is a good example of this type of unit, and if you have seen W7XM's little repeater with the two handhelds, you have seen this unit.

Aside from the kits, there are lots of other things that lend themselves to home construction. Antenna matching systems can involve big coils, variable capacitors, connectors and other necessary components as well as the construction of appropriate enclosures. Construction is a mix of electronics and mechanical engineering and can be quite rewarding when you are able to match that homebrew antenna to your transmitter.

Speaking of connectors, the art of properly attaching various coax connectors to various types of coax is an essential part of ham

radio. Mechanical attached connectors are the easiest to apply and are usually found on BNC or N connectors. The crimp-on connectors also are easy to install, but they need special tooling. Solder-on connectors like the PL239 need a high heat iron (American Beauty!!!) to properly solder the braid.

Antennas are another area that lends itself nicely to home construction. The popular J pole for 2 Meters is a favorite construction project. Wire antennas are easy to build and can give you very good results on the HF bands. Some of these are fed with open wire line, a feedline that you construct with spacers. Do you know that a very popular high gain directional antenna for portable work is made from old tape measures and a pvc boom? <https://w5nor.org/tape/> There is a world of these sort of construction projects in the ARRL Antenna Handbook.

Woodworkers are not left out of the construction end of the hobby. Building a good desktop structure to house your radios and other equipment really looks nice in the radio room and is quite functional when you are operating. It will allow for good ventilation, hide the tangle of interconnections, and look impressive to your visitors. Besides, our editor is always looking for good pictures of

our stations for the newsletter!

There are quite a few items like handheld radio stands, radio cases, antenna spacers, and the like that can be printed with computer controlled 3D printers. 3D engravers can be useful to those playing with the microwave bands where there is a need for building shields and cavity filters.

Raspberry Pi and Arduino boards can be used to build a wide variety of useful accessories as well as actual radios. They can be programmed to actually control your station locally or remotely, switch your antennas automatically when you change bands, and their utility is only limited by your imagination...

There are usually construction articles in QST or CQ Magazine, and more can be found in the ARRL Handbook. Picking up 'stuff' at the swap meets will populate your 'junk box' and give you the materials to build something useful for your ham shack.

SNARS VOLUNTEERING

Fantastic Volunteering with SNARS club members in the month of June. **Kids Day** was ably manned by (in no special order) by **Chuck WD6CHC**, **Kim KG7TMA**, **Kirk KB7QOD** and **Brian KJ6EAC**. **SNARS Field Day** was another fine example. Besides all the participants in Field Day, the FD committee: **John N7ROJ**, **Kirk KB7QOD**, **Derek W7DLZ**, **Doug W7DBE**, **Brian KJ6EAC**, **Ray KK7BVH**, **Tony W7XM** and **Barry K6ST**. Field Day was a great event, with lots of food, beverages, visitors, and participants. This type of teamwork from SNARS members is what make the Sierra Nevada Amateur Radio such a great club.

Please feel free to reach out to me to see how you might be of service to the club. With great appreciation, K6ST Barry SNARS President k6st@arri.net

73, Barry K6ST

President, Sierra Nevada Amateur Radio Society www.snars.org

Nevada Section Youth Coordinator

ARRL (American Radio Relay League) www.arri.org

The national association for amateur radio



SHORT TAKES (By Jim Shepherd W6US)

CONTEST CALENDAR

The CQ VHF Contest will be 1800Z, Jul 15 to 2100Z, Jul 16, 2023 and It is for contacts on 6M and 2M only. FM may be used by those who only have that mode... Take your HandiTalkie up to a mountaintop or high pass and work lots of other hams on simplex frequencies—no repeaters or internet allowed and 146.52 is also prohibited. There is a special class for Hilltoppers that may be of interest to the SOTA operators in the area. You won't have to sweat out any State QSO Parties in July, as they are taking a break for the month. This and other contest information can be found at:

<https://www.contestcalendar.com/contestcal.html>

DX

American Samoa will be on the air starting July 4th as KH8RRC for about 2 weeks. With 10m open, you can hear lots of other DX stations, especially South America where it should be easy to work every country on that continent. More information can be found at: <https://www.ng3k.com/Misc/adxo.html>

THIRD MONDAY ZOOM HAM RADIO NIGHT

We will have our popular Ham Radio Nights via ZOOM to get your questions answered. It will be held at 7pm on Monday, July 17th. We need to see more people join in the discussions. More information, including the link will be published before that date.

NAME THAT RIG?

(Answer on page 14)



www.rigpix.com

OPERATORS NEEDED FOR THE VOTA W1AW/7 OPERATIONS!

NEW SIGNUP PROCEDURE!!!

The dates are September 27th to October 4th for our second week where those of us in Nevada will have the chance to be W1AW/7 and make LOTS of QSOs. The week will start at 0000z, Wednesday, September 27th. We are looking for HF operators who are experienced contest/DX participants. They must be able to handle pileups, correctly log the contacts using a computer with logging software, and have a station that will provide a quality signal and the receive sensitivity to work the maximum number of contacts. This is not a QRP or Repeater event. CW operators will need to be able to adjust their speed to that of the calling station. Ten meters and VHF+ operations must be simplex (NO repeaters or internet connections) and preferably on SSB, CW and digital keyboard to keyboard operations. This will take a bunch of hams to cover the airwaves during our week of operations. The chance to get on the air with a famous 1x2 call and handle pileups only comes around rarely, so it is a good time to volunteer for this effort. All operators must use computer logging, preferably N1MM+ with the ARRL-VOTA udc template. Those stations using the digital WSJT-X modes must use that program inside of the N1MM+ program in order to properly generate a log with all the needed information.

We are going to schedule operations as a Swing shift (5pm-1am local), a Grave shift (1am-9am local), and a Day shift (9am-5pm local). Each 8 hour shift should have at least 4 hours of on-the-air activity on the assigned bands and modes. For HF operators, Day Shift will concentrate on 20m, 15m and 10m, Swing Shift will concentrate on 160m, 80m and 40m, and Graveyard Shift will operate on any and all open bands. Operators may sign up for multiple shifts and modes as available. You may sign up for up to 2 modes and/or frequencies in the same time slot, but you will need to be on the air for at least 7.5 hours of that shift and spend roughly equal time on the two selections. Multi operator stations must contact me for further instructions. **Only scheduled operators may use the W1AW/7 callsign during their assigned shifts.**

Technician and Novice operators can operate on 10 meters and up on all of the VHF, UHF, and Microwave bands with simplex FM, SSB, CW, and keyboard digital only. No repeaters, hotspots, or internet connections may be used. On 10m they may use the appropriate modulation from 28.000 to 28.500. Satellite contacts

are permissible as are EME contacts.

How to sign up for this week—

The timeslots are in UTC and show the BEGINNING time of the 8 hour period..... We will be in local daylight savings time during the event. The **Swing Shift showing for a UTC calendar day is actually occurring on the previous local time calendar day....**

0000z is the Swing time slot, 5pm local to 1am the **pre-day!**

0800z is the Graveyard time slot 1am to 9am local

1600z is the Day shift time slot 9am to 5pm local.

The new website for signups is <https://ok.arrl.org/w1awnv/>. You can check the day you are interested in by using the "Display Slots Selected by Day" and selecting the UTC date you are interested in. It will show all of the used slots, so you can go for any that are not filled.

You can now go to the "Select Your Band/Day/Mode" section and sign up. **Remember, Swing shift is the previous local time day**—if you wanted to sign up for Friday evening local time, you would select 2023-10-2 (Saturday UTC) and the 0000 time slot.

More information about the VOTA program is available at:

<https://ok.arrl.org/votanv/>

If you need to change your existing signup, contact me so I can do it... nvjims@gmail.com and put "W1AW/7 Change" in the title. I will contact you for further information about the change. I can **only** delete the signups on a slot, I cannot change anything, you will have to signup for your newly changed spot.

On October 4th, I will be sending out a special email to all scheduled operators detailing the procedure to enter your log for all of your shifts.

I will be available on the SNARS third Monday Ham Radio Zoom night on September 18th to handle questions. More information will be on the www.snars.org website.

Jim Shepherd, W6US
Nevada W1AW/7 Coordinator
(775) 420-0994

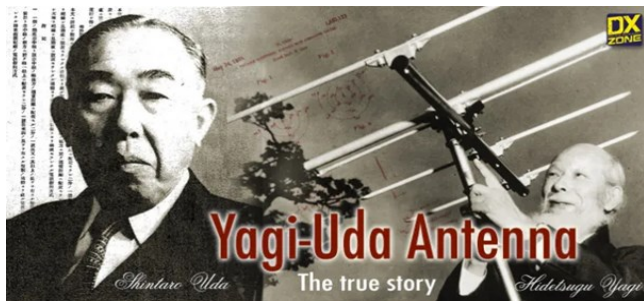
W7SSB's FUN PAGE

THE HISTORY OF THE YAGI ANTENNA

Many of us hams don't know the real story behind the Yagi Antenna! Let's go back to 1926 to the labs at Tohoku University Japan. Two professors Hidetsugu Yagi (1886 - 1976) and Shintaro Uda (1896 - 1976) are both behind the invention that changed communications! Dr. Yagi was senior to Dr. Uda who worked for him.

The antenna design (a parasitic array antenna with a single driven element, a reflector, and parallel thin rod elements "directors"—in a line) got its first major workout assisting airborne radar during World War II, followed by appearances on many rooftops with the rise of post-war television broadcasting.

Both Yagi and Uda introduced the antenna to Japan in a 1926 publication. The first English-language reference to the antenna can be found in a 1928 article published by Yagi—perhaps a reason why the official name of the antenna, Yagi-Uda, was truncated to simply a single name. Further, it was Yagi who applied for the Japanese patent (awarded in 1926) and later the U.S. patent under his name only. Despite the name becoming synonymous with Yagi, it is widely acknowledged (by the scientific community and Yagi himself) that Uda—an assistant to Yagi and radio engineer—played the lead!



Modern versions of this antenna are used on high frequency (HF), very high frequency (VHF), and ultra high frequency (UHF) bands due to its characteristically high [gain](#).

The directional antenna is primarily an [array](#) of linear [dipoles](#) with one driven element serving as the feed while additional elements act as "parasitic." While the feed element is connected to the transmitter or receiver with a transmission line, the additional elements are unattached. The purpose of these parasitic elements (or passive radiators) is to modify the [radiation pattern](#) of the radio waves emitted by the driven element, directing them in a beam in one direction. This increases the antenna's [directivity](#) and consequently, its gain.

8J3YAGI

Dr. YAGI memorial station
Operated by Osaka University Amateur Radio Club
28 September 2005 - 31 March 2007

Commemorating
the 120th anniversary of the birth of Hidetsugu Yagi
the 80th anniversary of Yagi-Uda antenna patent
the 60th anniversary of his appointment as
the President of Osaka Imperial University
the President of Japan Amateur Radio League
the 30th anniversary of his death



Hidetsugu Yagi 八木秀次
28 January 1886 - 19 January 1976

Today, this style of antenna is commonly known as the "beam antenna" or the "parasitic array." However, many still refer to it as the "Yagi antenna." This is perhaps due to the fact that while Uda was mainly responsible for the antenna's invention, it was

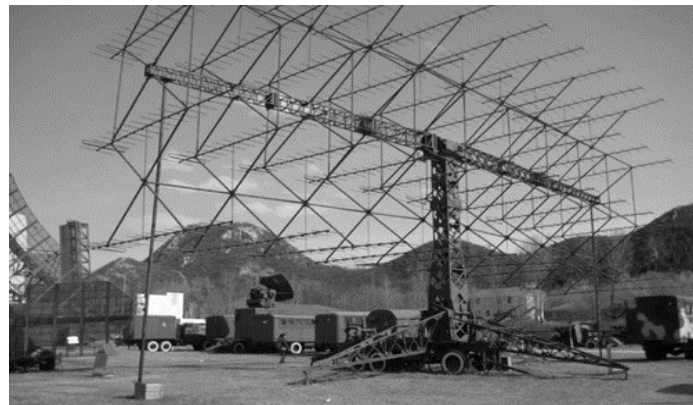
Yagi who helped popularize the antenna in the United States.

He participated in the establishing of the [Chiba Institute of Technology](#). He was the fourth president of [Osaka University](#) from February 1946 to December 1946. In 1942, he became the President of Tokyo Institute of Technology, in 1944 he became the President of the Technical Institution, and in 1946 also the President of the Osaka Imperial University. He was



Yagis come in all shapes and sizes! Hidetsugu Yagi with one of the early antennas that he and Uda developed

decorated with the Medal of Honor with Blue Ribbon Award in 1951, with the [Order of Culture](#) in 1956, and posthumously with the Grand Cordon of the [Order of the Rising Sun](#) in 1976.



Uda was born in 1896 in Toyama Ken, Japan. He studied electrical engineering under H. Yagi at Tohoku University and graduated in 1924, and then joined a communications research group directed by Yagi. One of Uda's first projects was to design a vacuum-tube oscillator that would operate at wavelengths of around 440 cm. Experiments using the oscillator as a transmitter led to the discovery of the wave projector, Uda initially used a resonant loop antenna and observed the directive radiation it produced. He then tried placing a parasitic loop near the driven loop in an effort to obtain a more directive beam. The idea for this arrangement apparently was suggested by an earlier investigation of loops of various shapes conducted by one of his classmates as a thesis under Yagi's direction. Subsequently, Uda substituted metal rods for parasitic loops and found that the field intensity in a preferred direction increased with the number of parasitic rods. He then undertook a systematic investigation to determine the effect on antenna directivity of changes in length, spacing, and geometric arrangement of parasitic elements.



Fig. 1. Shintaro Uda. (Courtesy of Library of Tohoku University, Sendai, Japan.)

More information regarding how Yagi Antennas work.

<https://www.noji.com/hamradio/pdf-ppt/noji/Noji-Article-Yagi-Antenna.pdf>

I hope this helps you with the history and use of Yagi - Uda Antennas in our everyday life. From amateur radio, satellite, cell towers, broadcast radio, etc.

Stay tuned !!

--

Don Sherman

W7SSB

(775) 742-5165 donssherman@gmail.com

CHAMELEON™
ANTENNA

SUMMER ACTIVITIES

IF you participated in any Summer ham activities (think Field Day, for example - whether with SNARS or on your own, in the field or even in your own home, SOTA, POTA, camping trip with a rig in tow, or just a ham outing of any kind, *why not brag a little about it?* Send me photos, writeups, whatever for inclusion in the SNARS Cracklin' Static Summer Special! The Summer Special is ONLY about YOUR activities, no club business etc.



Barry K6ST operating satellite from Jim KI6WJ's setup



Jim W6US operating digital from SNARS Field Day site

Questions? Contact me: holden7471@msn.com, or WB2AWQ@arrrl.net.

YOUTH INVOLVEMENT

ARRL Kids Day was a success for SNARS recently on Saturday, June 17th at the Nevada Train Museum.



A family from Reno with Mom, Dad, and two sets of twin children came down to Kids Day. The mom sees the value of bringing ham radio and Stem into their homeschooling curriculum. Subsequently, their whole family of 6 came to field day, learned a lot, and said they really appreciated SNARS club hospitality.



SNARS pavilion manned by Chuck WD6CHC, Kirk KB7QOD, Kim KG7TMA, and Brian KJ6EAC

73, K6ST Barry k6st@arrrl.net
Nevada Section Youth Coordinator
ARRL (American Radio Relay League) www.arrrl.org
The national association for amateur radio

ARES NEWS

EVENT CALENDAR

EVENTS 2023	DATE	DATE END	SPONSOR/ORGANIZER	COORDINATOR	CONTACT
Truckee Tahoe Gravel Race	7/1/23		John Prouty; Bike Monkey	Bob Miller WA6MTY	wa6mtty@gbis.com
Tahoe Rim Trail	7/15/23	7/16/23	Tahoe Mountain Milers	Bob Miller WA6MTY	wa6mtty@gbis.com
Death Ride	7/15/23		Tahoe Amateur Radio Assn	Paul Gulbro, WA6EWV	wa6ewv@juno.com
Vegas to Reno Off Road Race	8/16/23	8/20/23	Best in the Desert Racing Assn	Keith KC7HTK	kc7ht-keith@hotmail.com
One Day Ham Cram Test Review	8/19/23		Washoe ARES	Bob Miller WA6MTY	wa6mtty@gbis.com
Tour De Tahoe	9/10/23		Tahoe Amateur Radio Assn	Paul Gulbro, WA6EWV	wa6ewv@juno.com
Reno Air-Races	9/10/23	9/17/23	WC-ARES	Bob Miller WA6MTY	wa6mtty@gbis.com
Reno Jeep Festive	10/14/23		NV 4WD Assoc, Charles Doyle	Bob Miller WA6MTY	775 433-3864
Nevada Day Parade	10/28/23		NV AREA NW DEC	Tom Tobacco KE7NCJ	smokey5880@gmail.com
One Day Ham Cram Test Review	10/9/23		Washoe ARES	Bob Miller WA6MTY	wa6mtty@gbis.com
Scheels Turkey Trot	11/23/23		WC-ARES	Bob Miller WA6MTY	wa6mtty@gbis.com

Washoe ARES Event Support

NEVADA DEM / CARSON CITY ARES

WEDNESDAY NETS W7DEM

Alternating HF Bands Suspended

We have stopped alternating the HF bands between 40 meters and 80 meters each week to enable additional operators to check in and will remain on 40 meters until propagation dictates otherwise.

WEDNESDAY NETS		
MODE	FREQ	TIME
HF Phone	7.280	0830 to 0845
HF CW/Code	7.115	0845 to 0900
VHF/UHF	147.27 PL 156.7	0900 to 0915
Fusion	(See table below)	0915 to 0930
DMR	Nevada Room TG 3132	0930 to 0945

The W7DEM weekly COMMEK is designed to achieve testing of fixed and mobile communication stations and interoperability capabilities of various agencies and organizations to prepare for emergency response, locally, regionally, and nationally. In other words, we want to be sure that you can communicate with us via ALL modes available to us and you. There is no specific protocol, just check in with your name, call sign and location. For CW, just the call sign is sufficient. Please join us if you can.

Carson City ARES/DEM welcomes any and all check-ins on Wednesday mornings. Fusion, DMR, Winlink, Winlink Packet, HF, VHF -- your choice, any or all.

Our HF NETs begin at 0830 on 3.965 MHz or 7.280 MHz. At 0845 we switch to 3.556 or 7.115 MHz for CW check ins at around 10-15 WPM. If you check in at a slow speed, we will slow to accommodate you. These NETs are open to any and all Amateur Radio Operators that would like to participate. CW check ins are HIGHLY encouraged.

ARES NEWS continued next page....

The Fusion net takes check-ins every Wednesday morning starting at 0915. Because we are quite busy in the DEM radio room, we conduct the Fusion net between 0915 and 0930. We take a break at that point to do the statewide NAWAS roll call. Then we take check-ins via the DMR Nevada Talk Group (3132) from 0930 to 0945. Our VHF net on the 147.27 repeater starts at 0900 and runs to 0915.

Fusion Repeaters:		
Eagle Ridge	442.225	T 156.7
Carson DEM	442.900	T 156.7
Lake Tahoe	442.300	T 156.7
Smith Valley	440.050	T 94.8
Lovelock	444.225	T 123.0
Las Vegas	449.550	No Tone

Using WINLINK

If you're not presently using Winlink, it's very easy to download and set up.

The DEM HF Gateway is available 24/7 and takes traffic via VARA HF, VARA FM, ARDOP and PACTOR.

To use it, proceed as follows:

- Open WINLINK/RMS Express, and then on the OPEN SESSION button, open the mode you want to use (VARA HF, VARA FM, ARDOP etc.)
- Next use the Channel Selection button in that mode to find the W7DEM frequencies. It's a good idea to use the Update via Internet option so you have the most current station info.

Using the Message button at the top of the main window, compose your message, address it to W7DEM and W4FLL please, and post to your outbox. When you start a session your traffic will be sent. If you need help with this, let us know.

The DEM VARA FM Packet Gateway is also available 24/7 on frequency 145.610

At 1000 we participate in the CalOES HF Net which runs until around 1045. We also participate in a FEMA FNARS net during this time period and acknowledge calls on the State 800MHz Public Safety radio system.

Northwest Nevada Hospital Weekly Communicators Net

The purpose of the Northwest Nevada Hospital weekly communicators net is to foster understanding and team work between the Hospitals and Medical Center staff that are amateur radio operators and Amateur Radio Emergency Service members (ARES). To provide an opportunity for the staff and ARES members to become well acquainted with the radio equipment in their hospitals and medical centers. The amateur radio rooms exist to provide emergency communications via amateur radio when regular communications systems are overloaded or fail.

This net is conducted every Friday morning at 10:00AM pacific time on the SNARS linked repeater System. Please visit the SNARS website at [www dot SNARS dot org](http://www.dot.SNARS.org) for more information about this system.

We welcome and encourage visitors from anywhere to check-into the net. This net is open for visitors to test your station equipment, announcements or just to say hello. You do not have to be a Hospital or Medical Center to check into the net as a visitor.

DMR Check-In

In addition to the SNARS repeater system check-in, You can check-in on the DMR **Nevada Talk Group** on Fridays **starting at 9:30 am and closing at approximately 9:55 am**. This is not a formal net. John KL7RI has the channel open at St. Mary's and receive calls from Hospitals outside of the SNARS repeater system. He has been taking check-ins from the North Eastern Nevada Regional Hospital (Elko) and Battle Mountain General Hospital (Battle Mountain) and serve as a relay to the net control operator.

WINLINK Check-In

You can check-in on Winlink (Telnet). This system provides a method to check-in using the internet as well as radio packet. However, at this time it's recommend Winlink (Telnet) internet operation.

When you use the Winlink (Telnet) system and wish to check-in to the hospital, you simply address your telnet message to KA7ZAU, WA6MTY, KF7KEM, KF7EMU and KL7RI.

Winlink is a free software service for Amateurs that involves sending e-mail to other Amateurs with valid call signs that has an account with Winlink. Additionally, the Winlink system provides e-mail from amateurs to any email account.

To get started go to the web site <https://winlink.org> and register or obtain an account. (this is the hardest part). You can then download the Winlink programs on your computer and proceed to operate.

Continued next page.....

ARES NEWS (continued from previous page.....)

Listed below is a very good "You Tube" link that provides information on how to get started with the Winlink system. The Winlink system fills a very important service when all communications is lost, even the internet.

<https://youtu.be/fO730gfzYko>

When you use the Winlink (Telnet) system and wish to check-in to the hospital, you simply address your telnet message to KA7ZAU, WA6MTY, KF7KEM, KF7EMU and KL7RI. If addressed to KL7RI I will respond to you via Winlink.

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Nevada Section Northwest District ARES Net.

This net meets every Thursday evening at 1930 local time on the SNARS Linked Repeater System. (www.snars.org/repeaters)

The purpose of this net is to develop teamwork in the Nevada Section NW District ARES organization. This net provides an opportunity for ARES leaders and members from different counties to become better acquainted with one another. In addition, this net provides a venue for announcements concerning events, activities, trainings, and exercises. Quite often there will be an ARES discussion topic for the net.

Check-ins for the net takes place in three sections:

- o First section: We take check-ins from anyone in an ARES appointed position.
- o Second section: We take check-ins from other ARES members.
- o Third section: We open the net to visiting stations.

Come on and check in to one or all of these NETs, checking your equipment and improving your communication skills. Hope to hear/see you on the air.

Bob Miller WA6MTY
Emergency Coordinator for Washoe County
Amateur Radio Emergency Service
wa6mty@gbis.com

SNARS HAM RADIO MENTORING NIGHT

3rd Monday of each month at 7PM PT on Zoom
Join together and Elmer each other for Ham Radio Night on



Ham Radio Mentoring Night, SNARS (virtual on Zoom conferencing) 7-17-2023 7:00PM PT

Topic Breakout Rooms:

Field Day Stories VHF/UHF Analog DMR/Fusion HF Antennas

Register here:

<https://us06web.zoom.us/meeting/register/tZUpfuCqpz4tEtZmkDbAbs1Lmd82vH3oegH>

FUN STUFF FOR JUNE

July, like June, doesn't have a lot of better contests, and NO state QSO parties. Guess it's because of vacation time! ARRL and NCJ contests are shown in BOLD. Our neighbors to the north, who so often participate in state QSO parties and Field Day, are having Canada Day Contest on 1 July. Notably, the Youth On The Air contest is the 22nd, and an interesting contest, especially if you are into QRP, and QCX radios, is the QCX Challenge on the 31st. Note it is split into two one-hour sessions. The more interesting contests are shown below.

1 July 0000 to 1 July 2359 1.8-28, 50,144 RAC Canada Day Contest CW,Ph www.rac.ca

8 July 1200 to 9 July 1200 1.8-28 IARU HF World Championship CW,Ph www.arrrl.org/iaru-hf-world-championship

15 July 1800 to 16 July 0559 3.5-28 North American QSO Party, RTTY www.ncjweb.com/NAQP-Rules.pdf

15 July 1800 to 16 July 2100 50,144 CQ Worldwide VHF Contest CW,Ph,Dig www.cqwww-vhf.com

22 July 1000 22 2159 3.5-28 YOTA Contest CW,Ph www.ham-yota.com/contest

31 July 1300 to 31 July 1400, then 31 July 1900 to 31 July 2000 1.8-28 QCX Challenge CW www.qrp-labs.com/party.html

Check out the rest of the contests here:

<https://www.arrrl.org/files/file/Contest%20Corral/2023/July%202023%20Corral.pdf>

If you're not into contests, there's always DX to chase! July has just a few, but there's some pretty good stuff here! Summer doldrums I guess! The better ones....

Jun 21 to Jul 03 Malawi 7Q7WW

Jun 25 to Jul 05 Faroe Is OY

Jun 29 to Jul 04 Guam KH2

Jul 04 to Jul 18 American Samoa KH8RRC

Jul 11 to Jul 18 Maldives 8Q7HU

You might check with <https://www.ng3k.com/Misc/adxo.html> to see if these DXpeditions are still on, and to see other ones that would be of interest.

RENO QRP SLOW SPEED CW NET

NEXT NET SESSIONS WILL BE at 10 AM, July 6 and July 20, Pacific Daylight Time. Check with WD7Y@sbcglobal.net to confirm times. Target frequency 7.045 MHz, if busy search somewhere near that frequency.

THE FOLLOWING SHOULD ALWAYS BE IN YOUR REPORT:

NAME ,RST, LOCATION, RIG, POWER, ANTENNA.

REMEMBER TO INCLUDE RST IN YOUR REPORT

Feel free to add something else in your exchange.

Take some time to report RST for other OP's or anything else that comes to mind.

Sharing information about you and your equipment will accomplish two things.

First It gives you and everybody else practice sending and copying.
Second It is nice to spend time on the air with your friends. Consider this a QRP meeting on the air.

Relax and have some airtime fun with your friends.

73/72 Ed/WD7Y

NAME THAT RIG (from page 7)

In the very late 1950s and into the 1960s Swan Electronics made a ton of tube-type radios in Oceanside Ca. Herb Johnson, W6QKI, founder of Swan, sold out to Cubic, then went on to found the **Atlas Radio Co.** Their first product was the **Atlas 180**, a solid-state transceiver, in 1974. The 180 was something of a curiosity, as it covered 160 meters through 20 in five bands (no WARC at the time), and 80M was divided into two bands. The radio did CW and SSB. Like most Swan radios, the **180** had to be switched from transmit to receive on CW (unless you had the QSK module), and there were some issues with drift. The receiver was aptly described in an Eham review: "bomb-proof but a bit deaf", as the antenna was connected directly to the diode ring detector in receive, no RF amp in the receiver. But the **180** was also described as "very reliable", and always got excellent audio reports. Very few **Atlas 180s** remain today, but some of the follow-up radios - the 210, 210X, 215, 215X, 300 and 350XL show up from time to time. The **180** sold for around \$500 initially. **Atlas** went out of business in 1994, probably a victim to the Japanese "electronics invasion". Shown below are the Atlas 210X, and their last, the 400X, which was never actually delivered although a number of hams had paid deposits on them.



SNARS SILENT KEYS

IN MEMORY OF SNARS MEMBERS WHO HAVE RECENTLY PASSED AWAY.

If you know of a SNARS member or friend of SNARS who has passed away recently, submit it to me WB2AWQ@arrrl.net or any Board member for verification and inclusion on this page.

ISLAND LIFE (part 2) By Jon Fox KF7KTC

When rainy season hits us in the Philippines it will rain for 3 or 4 days continuously and very heavy before easing up for a day. That makes cleanup difficult because we need to burn the trimmings from the trees, dried banana stalks, some weeds, and general household garbage. Tree branches take forever to compost, so we burn them. We spread the ashes into the fields so the minerals get back into the soil. We also have a compost pile where rejects from our produce are tossed, and also many of the weeds.

We noted that our 3 year old domestic well was sanding in near the bottom, so we drilled a new well 100 feet deep. It is the deepest well in all of our town, as most stop at about 65 feet. We installed a new submersible pump.

In August we start to get into the heavy typhoon season. Tropical cyclones entering the Philippine Area of Responsibility, as well as



New well being drilled



Tree damage from Typhoon Karding

for us, but for our neighbors. Typhoon Karding became a "Super Typhoon" (same as a category 5 hurricane) on September 25. The typhoon crossed directly over the farm, with winds of 140 km/h (86 mp/h) near the center, gusts of up to 230 km/h (142 mp/h). We sustained damage to all of our timber trees except for 5 mahogany trees, many of the banana plants, and lost 20 of our orchard trees. No structural damage was sustained.



Fruit tree uprooted



Electric company using Carabao, a local type of water buffalo, for repairing electric lines after Typhoon Karding.

Power was out for about 10 days, as the local electrical cooperative worked to restore it. We used a generator for pumping water during that time. Aside from downed lines, many reinforced concrete power poles were toppled or broken. We salvaged out timber trees for the roof reconstruction of some family members, and eventually removed the orchard trees from the ground.

The local government distributed 25 kilo bags of rice, and some canned goods to local families. We re-distributed the food to local families, some of which had considerable damage to their lightly-built homes.

I didn't hear of any local activity by amateur radio operators. The total amateur radio population of the country is only around 7000, so that is about one amateur for each of the islands that make up the group. I still plan on increasing the interest among the local



Jon introduced Thanksgiving to his family.....

community once I get a permanent station set up.

You are welcome to contact me by email at

JUNE BOARD MEETING MINUTES WILL APPEAR IN NEXT MONTH'S ISSUE.